



PTO/SB/08A (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no person is required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 2

Complete If Known

Application Number	10/743,620
Filing Date	12/22/2003
First Named Inventor	Barbara E. Blum
Art Unit	1615
Examiner Name	Unassigned

Attorney Docket Number 702.163

U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (<i>if known</i>)			
LS		US-US2003/0008328	01/09/2003	Wironen	
		US-4294753	10/13/1981	Urist	
		US-4455256	06/19/1984	Urist	
		US-4472840	09/25/1984	Jefferies	
		US-4563489	01/07/1986	Urist	
		US-4596574	06/24/1986	Urist	
		US-4619989	10/28/1986	Urist	
		US-4627982	12/09/1986	Seyedin	
		US-4678470	07/07/1987	Nashef	
		US-4789732	12/06/1988	Urist	
		US-5073373	12/17/91	O'Leary	
		US-5236456	08/17/1993	O'Leary	
		US-5275954	01/04/1994	Wolfinbarger	
		US-5290558	03/01/1994	O'Leary	
		US-5298222	03/29/1994	O'Leary	
		US-5439684	08/08/1995	Prewett	
		US-5531791	07/02/1996	Wolfinbarger	
		US-5707962	01/13/1998	Chen	
		US-5904718	05/18/1999	Jefferies	

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (<i>if known</i>)				

Examiner Signature	/Laura Schuberg/	Date Considered	12/07/2006
--------------------	------------------	-----------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO		Complete If Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>		Application Number	10/743,620
		Filing Date	12/22/2003
		First Named Inventor	Barbara E. Blum
		Art Unit	1615
		Examiner Name	Unassigned
Sheet	2	of	12
		Attorney Docket Number	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 2 of 2

Complete If Known

Application Number	10/743,620
Filing Date	12/22/2003
First Named Inventor	Barbara E. Blum
Art Unit	1615
Examiner Name	Unassigned
Attorney Docket Number	702-163

U. S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

Examiner Signature	/Laura Schuberg/	Date Considered	12/07/2006
--------------------	------------------	-----------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

Translation is attached.
This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Crossed out reference is a duplicate from page 1.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO				Complete If Known	
				<i>Application Number</i>	10/743,620
				<i>Filing Date</i>	12/22/2003
				<i>First Named Inventor</i>	Barbara E. Blum
				<i>Art Unit</i>	1615
				<i>Examiner Name</i>	Unassigned
Sheet	1	of	2	Attorney Docket Number	702.163

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T ²
LS		URIST, M.R., et al.: The bone induction principle. Clin. Orthop. Rel. Res. 53: 243-283 (1967)		
		CANALIS, E., et al.: Isolation of growth factors from adult bovine bone. Calcif. tissue Int. 43: 346-351 (1988)		
		HAUSCHKA, P.V., et al.: Growth Factors in Bone Matrix. Isolation of multiple types by affinity chromatography on heparin-sepharose. J. Biol. Chem. 261(27): 12665-12674 (1986)		
		HONSAWEK, S., et al.: BMP-4 content in human demineralized bone matrix correlates with osteoinductivity. Proc. 49th annual meeting ORS, Vol. 28, New Orleans, LA, paper 0020		
		KAWABATA, M., et al.: Bone morphogenetic proteins. Skeletal Growth Factors (Canalis, E., editor) Lippincott Williams & Wilkins, Philadelphia, PA, pp. 269-290 (2000)		
		MIZUTANI, H., et al.: The nature of bone morphogenetic protein (BMP) fractions derived from bovine bone matrix gelatin. Clin. Orthop. Rel. Res. 171: 213-223 (1982)		
		MOHAN, S., et al.: Therapeutic potential of TGF- β , BMP and FGF in the treatment of bone loss. In: Principles of Bone Biology (Bilezikian, J.P., et al., eds.) Academic Press, San Diego, CA, Chapter 80, pp. 1111-1123 (1996)		
		SAMPATH, T.K., et al.: Dissociative extraction and reconstitution of extracellular matrix components involved in local bone differentiation. Proc. Natl. Acad. Sci. USA 78(12): 7599-7603 (1981)		
		URIST, M.R., et al.: Solubilized and insolubilized bone morphogenetic protein. Proc. Natl. Acad. Sci. USA 76(4): 1828-1832 (1979)		
↓		URIST, M.R., et al.: A bovine low molecular weight bone morphogenetic protein (BMP) fraction. Clin. Orthop. Rel. Res. 162: 219-231 (1982)		

Examiner Signature	/Laura Schuberg/	Date Considered	12/07/2006
--------------------	------------------	-----------------	------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.
 This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO				<i>Complete If Known</i>	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				<i>Application Number</i>	10/743,620
				<i>Filing Date</i>	12/22/2003
				<i>First Named Inventor</i>	Barbara E. Blum
				<i>Art Unit</i>	1615
				<i>Examiner Name</i>	Unassigned
(Use as many sheets as necessary)					
Sheet	2	of	2	<i>Attorney Docket Number</i>	
702.163					

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
LS		URIST, M.R., et al.: Bone cell differentiation and growth factors. Science 220: 680-686 (1983)	

Examiner Signature	/Laura Schuberg/	Date Considered	12/07/2006
--------------------	------------------	-----------------	------------

***EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.